

THE BULLETIN

Monthly News from ENERGY STAR BuildingsSM and Green Lights[®]

February 14, 2000



Web Site Information

ENERGY STAR BuildingsSM
and Green Lights[®]
www.epa.gov/buildings

ENERGY STAR[®] Label
for Buildings
www.epa.gov/buildinglabel

Ally Services and Products
(ASAP) Directory
www.epa.gov/asap

Disposing of Spent Lamps

In the process of relamping or upgrading lighting in your facilities, the question arises: what to do with spent lamps?

Each year, nearly 600 million fluorescent lamps are disposed of in the United States. These lamps contain mercury and lead which, if released into the environment, may contaminate water supplies and make their way through the food chain, eventually affecting humans. Lamp users are responsible for the proper handling and disposal of their spent lamps.

Under the U.S. Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), companies can be held responsible for improper mercury waste disposal. If mercury-contaminated products are sent to a landfill disposal site or incinerator, and this location is later determined to be a Superfund site, contributing companies may be held liable for the cleanup costs.

When choosing a method of disposal or treatment of retired lamp waste, it is important to consider a number of factors, including current regulatory requirements, liability, and environmental responsibility.

Universal Waste Rule

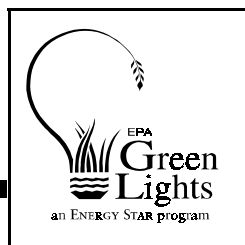
In 1995, EPA developed the Universal Waste Rule (UWR) to govern the handling of specific hazardous wastes in the United States. Administered under the Resource Conservation and Recovery Act (RCRA), the UWR was designed to regulate the proper disposal of "universal wastes," which include batteries, pesticides, and thermometers. The UWR eases the

regulatory burden on businesses that generate these wastes by streamlining the requirements related to notification, labeling, marking, prohibitions, accumulation time limits, employee training, response to releases, offsite shipments, tracking, exports, and transportation. By reducing administrative requirements, this rule is expected to save companies more than \$70 million per year in compliance costs and reduce the amount of time spent on paperwork requirements by more than 500,000 hours annually.

In July 1999, EPA extended the UWR to include lamps as a universal waste. After consulting with numerous state agencies, trade associations and end-users, EPA concluded that regulating spent lamps as a universal waste would lead to better management of these lamps and facilitate compliance with hazardous waste requirements. EPA also deemed that inclusion of lamps under the UWR supports the agency's efforts to promote waste reduction, recycling, and energy efficiency. Therefore, effective January 6, 2000, lamps that are not compliant with EPA's Toxic Characteristic Leaching Procedure (TCLP) now must be recycled or disposed of as a universal waste under the UWR. The UWR encourages the recycling of spent lamps in order to keep them out of municipal landfills and incinerators.

For spent lamps that are not compliant with the TCLP, the UWR:

- Eases the regulatory burden on businesses by making compliance simpler and less costly
- Transfers the responsibility for record keeping from the end user to the recycler



New Partners

EPA would like to congratulate the following Partners who have recently joined ENERGY STAR Buildings:

Accor Economy Lodging

Aveda Corporation

Pitney Bowes, Inc.

The Bon-Ton Department Stores

Troutman Investment

Company

Wawa, Inc.

- Allows end users to transport packaged spent lamps in regular trucks, rather than hazardous waste haulers

Four types of participants are recognized in the new UWR: small quantity handlers, large quantity handlers, transporters, and destination facilities. Handlers are people who produce, store, collect, or accumulate hazardous waste lamps, but do not treat, recycle, or dispose of them. They also are the participants who benefit most from the universal waste program. See the text box for definitions of small and large quantity handlers.

Transporters are persons engaged in the off-site transportation of universal waste by air, rail, highway, or water. A destination facility is a facility that treats, disposes of, or recycles a particular category (e.g. batteries, lamps, etc.) of universal waste.

To date, more than 20 states have adopted the UWR for lamps and many other states are in the process of doing so. Prior to the new UWR, many states and local municipalities had enacted their own regulations to handle hazardous waste lamps. These regulations, and the governing bodies that oversee compliance, vary widely from state to state, so it is important that you understand your state's particular requirements before you take any action. The safest bet, both for your company and the environment, is to adopt an "Always Recycle" policy.

Recycling

Recycling is the environmentally-responsible option for dealing with spent lamps. Through the recycling process, mercury is recovered, aluminum is recycled, phosphor powder is reused, and the glass is used as filler in asphalt or other applications.

While some manufacturers produce TCLP-compliant lamps, it is generally better to recycle all fluorescent lamps to protect our environment from

What Type of Generator Are You?

Small Quantity Handler —

Generator or third party that does not accumulate more than 5,000 kilograms (11,000 pounds) of ALL universal hazardous waste (batteries, pesticide wastes, thermostats, and lamps) at any time during the calendar year. This is equivalent to 17,000 four-foot T-12s or 26,000 four-foot T-8s.

Requirements:

- May accumulate waste for no longer than one year.
- Training and information on proper handling of mercury lamps and emergency procedures required.
- No EPA registration required.

Large Quantity Handler —

Generator or third party that accumulates 5,000 kilograms (11,000 pounds) or more of ALL universal hazardous waste (batteries, pesticide wastes, thermostats, and lamps) at any time during the calendar year.

Requirements:

- May accumulate waste for no longer than one year.
- Training and information on proper handling of mercury lamps and emergency procedures required.
- EPA or state registration and ID number required.
- Must notify the EPA of management activities
- Required to keep records of shipments for three years.

Conditionally Exempt —

Generator or third party that accumulates no more than 100 kilograms of combined waste (equivalent to 300-450 four-foot lamps) at any time.

Requirements:

- Check with state and local municipalities for specific landfill/solid waste incinerator regulations.

mercury contamination. Users of lamps that are not compliant with the TCLP who do not recycle must comply with

For more information on lamp disposal, visit:

www.epa.gov/asap

www.epa.gov/epaoswer/hazwaste/id/merc-emi/merc-pgs/fedreg.pdf

www.epa.gov/epaoswer/hazwaste/id/univwast.htm

Or call the Resource Conservation and Recovery Act Hotline at:

1-800-424-9346.

RCRA's more stringent hazardous waste regulations, which may be more costly and time-consuming. An approved recycling process provides you with a safe means of disposal that minimizes your liability, is cost-effective, and protects the environment.

Tips for Lamp Disposal

- Determine what kind of generator you are (small, large, conditionally exempt - see text box on page 2).
 - Find out if your state has adopted the UWR and how it is enforced.
 - Select recycling and disposal vendors carefully. Make sure they are familiar with federal and state regulations and have necessary permits. Visit the Ally Services and Products Directory at www.epa.gov/asap to locate an ENERGY STAR Buildings Ally that recycles lamps.
 - Recycle all lamps containing mercury. The following types of lamps contain mercury and should be recycled: fluorescent (straight-tube and compact); high-intensity discharge; mercury-vapor; metal halide; high-pressure sodium; and neon.
 - Implement group relamping. Rather than replacing individual lamps when they fail, relamp entire rooms or floors at the same time. This will permit easier collection and shipping of lamps to a recycling facility.
 - Protect lamps from breakage. Remove lamps carefully and store used lamps in a location and manner that will prevent breakage. Insert old lamps into the boxes that the new lamps came in. Some lamp recyclers will supply boxes for storage.
- Check with your state to find out if controlled crushing is permitted. Because broken and crushed lamps release mercury, care must be taken when handling these wastes.
 - Collect broken lamps. If lamps are accidentally broken, sweep up broken glass and powder and store in a sealed container. Wear proper protection.
 - Label containers of used lamps. Clearly identify boxes; for example, "Used fluorescent lamps for recycling."
 - Deliver used lamps to a collection site for recycling. This may be an actual recycling site, or a consolidation site to prepare larger containers of lamps for shipping to a regional facility. In some areas and for smaller quantities of lamps, shipping lamps will be more cost-effective than delivery.
 - Maintain careful records. To protect yourself from future liability, save invoices that track your used lamps. Include the following information: date of shipment; number of lamps; location from which lamps are shipped; destination of shipment.
 - Account for the cost of recycling. In most areas, you will have to pay to responsibly dispose of used fluorescent lamps. The cost of proper disposal should be factored into any lifecycle costing analysis on relamping.

Tips for Purchasing New Lamps

- Specify T-8 fluorescent lamps. Thinner-diameter T-8 straight-tube fluorescent lamps should be specified rather than T-10 or T-12 lamps. Not only are the T-8 lamps more energy-efficient, but they also contain significantly less mercury.

Ask the Energy Expert

Have a Question?

Get your maintenance, financing, communications, and Partnership questions answered by e-mailing Sol Salinas, *Bulletin* Editor, at salinas.sol@epamail.epa.gov. Answers to technical questions and other technical tips are also available on the Ally Services and Products (ASAP) Directory on the Web at: www.epa.gov/asap.

Bulletin Subscription Information

The Bulletin is distributed on the first Monday of the month to more than 6,000 ENERGY STAR Buildings and Green Lights participants and friends.

To add or remove your name from the fax distribution list, please call the toll-free Hotline at: **1-888-STAR YES**.

To receive *The Bulletin* electronically, please send an e-mail to: "listserver@unixmail.rtpnc.epa.gov" and in the message body type in the following:

subscribe energystar your name

You also can remove your name by typing:

unsubscribe energystar

If you have questions, you may e-mail Sol Salinas, *Bulletin* Editor, at:

salinas.sol@epamail.epa.gov
or call the toll-free Hotline.

- Buy new lamps from a responsible company. Specify fluorescent lamps from a company that supports responsible regulatory controls on lamp disposal and that has made good-faith efforts to reduce mercury levels to the extent possible.

Thank You for Your Input

As you may have noticed, we did not develop a January 2000 issue of the *Bulletin*.

We have been busy reviewing and evaluating the information *Bulletin* readers have provided us regarding the format, frequency, and content of this publication.

Thanks to everyone who responded to our request for feedback in the December issue of the *Bulletin*. This

month's lamp disposal article comes as a direct result of requests from several *Bulletin* readers. We encourage you to continue sharing your insightful comments and recommendations for future *Bulletin* topics. We will do our best to feature as many of your recommendations as possible.

Send your ideas for future *Bulletin* topics or any other comments and suggestions to:

John Sullivan at
jsullivan@icfconsulting.com

Gearing Up for Earth Day 2000

Plans are underway to celebrate the 30th anniversary of Earth Day (April 22, 2000). One group, Earth Day Network, plans to mobilize more than 500 million people around the world in a massive call to action. The goal of their April 2000 celebration is to connect public support for environmental protection with a concrete agenda for action, especially on energy and climate change issues. More than 2,500 groups in 162 countries have already joined Earth Day Network's membership roster. These groups are planning events and campaigns for Earth Day 2000.

As participants in the voluntary ENERGY STAR Buildings and Green Lights Partnership, your lighting and building upgrades help save energy, money and a precious resource—the planet. Your energy efficiency demonstrates that a profitable approach to preventing air pollution is working.

If you are interested in initiating an event or campaign, alone or with other ENERGY STAR Buildings and Green Lights participants in your area (or have additional ideas about how you'd like to participate in Earth Day 2000 festivities), please email lewis.katef@epa.gov.

For additional information about Earth Day, visit EPA's Web site at: www.epa.gov/epapages/earthday.

For more information about the Earth Day Network, visit their Web site at: www.earthday.net.